

CLAIMS

What is claimed is:

1. A cooking apparatus, comprising:
a body provided in a top thereof with an opening;
a pair of heating units arranged on sides of the body toward the opening;
a grill unit mounted on the top of the body;
a heat reflecting unit arranged below the grill unit to reflect heat transferred from the heating unit toward the grill unit; and
a cooling fan to cool the heat reflecting unit.
2. The cooking apparatus as set forth in claim 1, wherein the heat reflecting unit comprises:
front, rear, and side plates, and a pair of inner reflecting plates and a pair of outer reflecting plates arranged between the front, rear, and side plates, to reflect heat generated by the heating units toward the grill unit.
3. The cooking apparatus as set forth in claim 2, wherein:
the cooling fan is attached to lower surfaces of the inner reflecting plates, to forcibly cool the inner and outer reflecting plates.
4. The cooking apparatus as set forth in claim 3, wherein:
the front and side plates of the heat reflecting unit are provided therethrough with through holes to draw air into an interior of the heat reflecting unit, in which the cooling fan is arranged, and to discharge the air from the interior of the heat reflecting unit.
5. The cooking apparatus as set forth in claim 3, wherein:
the cooking fan is an axial-flow fan.
6. The cooking apparatus as set forth in claim 2, wherein:
the cooling fan is attached at ends thereof to the front and rear plates of the heat reflecting unit, respectively, to forcibly air-cool the inner and outer reflecting plates.
7. The cooking apparatus as set forth in claim 6, wherein:

the side plates of the heat reflecting unit are provided therethrough with through holes, to draw air into an interior of the heat reflecting unit, in which the cooling fan is arranged, and to discharge air from the interior of the heat reflecting unit.

8. The cooking apparatus as set forth in claim 6, wherein:
the cooking fan is a centrifugal fan.

9. The cooking apparatus as set forth in claim 2, wherein:
the cooling fan is attached at ends thereof to the side plates of the heat reflecting unit, respectively, to forcibly air-cool the inner and outer reflecting plates.

10. The cooking apparatus as set forth in claim 9, wherein:
the front and rear plates of the heat reflecting unit are provided therethrough with through holes to draw air into an interior of the heat reflecting unit, in which the cooling fan is arranged, and to discharge air from the interior of the heat reflecting unit.

11. The cooking apparatus as set forth in claim 9, wherein:
the cooking fan is a centrifugal fan.

12. The cooking apparatus as set forth in claim 2, further comprising:
a temperature sensor mounted on a lower surface of one of the inner reflecting plates, to automatically operate the cooling fan when the inner reflecting plate exceeds a predetermined temperature.

13. A cooking apparatus comprising:
a body;
a heating unit;
a heat reflecting unit, removably mounted in the body, to reflect heat from the heating unit; and
a cooling fan to cool the heat reflecting unit.

14. The apparatus according to claim 13, wherein the heat reflecting unit comprises:
a frame; and
reflecting plates mounted on the frame, to reflect heat from the heating unit.

15. The apparatus according to claim 14, wherein:

the frame and the reflecting plates define an inner space therebetween; and
the cooling fan is mounted in the inner space to cool the reflecting plates.

16. The apparatus according to claim 15, further comprising:

a thermostat operating the fan when a temperature of the reflecting plates exceeds a predetermined temperature.

17. The apparatus according to claim 16, wherein:

the predetermined temperature is 200°C.

18. The apparatus according to claim 16, wherein:

the frame has holes therethrough allowing air in the body to communicate with the cooling fan.

19. The apparatus according to claim 18, wherein:

the body has holes therethrough allowing air outside the body to communicate with the cooling fan.

20. The apparatus according to claim 19, wherein:

when the thermostat operates the fan, the fan draws in the air outside the body into the inner space through the holes in the body and the frame to cool the reflecting plates.

21. The apparatus according to claim 19, wherein:

the cooling fan is an axial flow fan.

22. The apparatus according to claim 19, wherein:

the cooling fan is a centrifugal fan.

23. The apparatus according to claim 22, wherein:

the centrifugal fan is a sirocco fan.

24. The apparatus according to claim 22, wherein:

an axis of rotation of the centrifugal fan is positioned approximately parallel to an intersection of the reflecting plates; and

the holes in the frame are positioned so that the air flows across the axis of rotation the cooling fan.

25. The apparatus according to claim 24, wherein:
the centrifugal fan is positioned underneath the reflecting plates.

26. The apparatus according to claim 22, wherein:
an axis of rotation of the centrifugal fan is positioned approximately perpendicular to an intersection of the reflecting plates; and
the holes in the frame are positioned so that the air flows across the axis of rotation the cooling fan.

27. The apparatus according to claim 26, wherein:
the centrifugal fan is positioned adjacent to a space underneath the reflecting plates.

28. A removable heat reflecting unit for a cooking apparatus including a body and a heating unit, the heat reflecting unit comprising:
a frame;
reflecting plates mounted on the frame, to reflect heat from the heating unit; and
a cooling fan to cool the reflecting plates.

29. The heat reflecting unit according to claim 28, wherein:
the frame and the reflecting plates define an inner space therebetween; and
the cooling fan is mounted in the inner space to cool the reflecting plates.

30. The heat reflecting unit according to claim 29, wherein the reflecting plates comprise:
inner reflecting plates, non-coplanarly joined at first edges thereof; and
outer reflecting plates, each non-coplanarly joined to a second edge of one of the inner reflecting plates.

31. The heat reflecting unit according to claim 30, wherein the reflecting plates comprise:

at least one recess defined where at least one of the inner reflecting plates joins the corresponding outer reflecting plate, to collect the liquid separated from the food during cooking.

32. The heat reflecting unit according to claim 30, wherein:

the cooling fan maintains the heat reflecting unit below a predetermined temperature, so that the collected liquid and particulate do not burn.

33. A removable heat reflecting unit for a cooking apparatus including a body, a cooking surface, and a heating unit, the heat reflecting unit comprising:

a frame;

reflecting plates mounted on the frame, to reflect heat from the heating unit towards the cooking surface and collect liquid and particulate separated from food during cooking; and

a cooling fan to cool the reflecting plates,

wherein the frame and the reflecting plates define an inner space therebetween, the cooling fan is mounted in the inner space, and the cooling fan maintains the reflecting plates below a predetermined temperature, so that the collected liquid and particulate do not burn.